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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/385,014 | 08/27/1999 | NAOHARU SHINOZAKI | P8075-9014 | 8603 |

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ARENT FOX KINTNER PLOTKIN & KAHN PLLC
1050 CONNECTICUT AVENUE, N.W.
SUITE 400
WASHINGTON, DC 20036-5339

EXAMINER

LE, DINH THANH

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2816

DATE MAILED: 08/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/385,014

Applicant(s)

SHINOZAKI, NAOHARU

Examiner

DINH T. LE

Art Unit

2816

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2816

FINAL REJECTION

Response to Application's Amendment

Claims Rejection

Claim Rejections - 35 USC § 112

Claims 6 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Correction or clarification is required.

It is unclear how the recitation "the internal signal having a second phase that is the same as the first phase of the data strobe signal" is read on the preferred embodiment. Insofar as understood, no such limitation is seen on the drawings. For example, Figure 7 of the present invention shows that the phase of the output signal (dqZ) is opposite to the phase of the phase to the input signal (DQ).

Claim Rejections - 35 U.S.C. § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 4-5 and 16-18 are rejected under 35 USC 102 (b) as being anticipated by Takahashi et al (JP40927070).

Figures 1 and 4 of Takahashi et al disclose a circuit comprising a current mirror circuit (P5, P6), a differential circuit (N3, N4), a constant current source (N5) and a current regulating circuit (N6).

Claim Rejections - 35 U.S.C. § 103

Claims 1-2 and 4-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Figure 1 of the applicant's admitted prior art in view of Takahashi et al (JP40927070).

Figure 1 of the admitted prior art discloses a circuit comprising the amplifier (2a), unmarked inverters and a processing signal circuit or a latch circuit (3) but does not disclose the current regulating circuit and that the processing signal circuit includes a plurality of processing circuits. Figures 1 and 4 of Takahashi et al teaches an amplifier circuit comprising a current regulating circuit (P2, N6) for attaining a high speed cycle time, see the Abstract. It would have been obvious to a person having skill in the art at the time the invention was made to employ the current regulating circuit taught by Takahashi et al in the circuit of the admitted prior art for the purpose of attaining a high speed cycle time. Note that, as notoriously well known in the art, the latch circuit or the processing signal circuit of the admitted prior art can be duplicated to provide more output signals. Thus, duplicating the latch circuit of the circuit of the admitted prior art is a common practice for an engineer or is considered to be a matter of the design expedient for the engineer depending upon a particular application. See *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. Noting that the phase difference between the output signal and the output signal of Takahashi et al is adjustable using the inverters. Therefore, adjusting the output phase same as the input phase for a particular environment would have been obvious to a person having skill in the art.

Response to Applicant's Arguments

The applicant argues that Takahashi et al does not disclose that the internal signal being directly provided to the current regulating circuit, in particular, the transistors (P2, N6) of Takahashi receives the internal signal through the inverters (DL1 or DL2). The arguments are not persuasive because the reciting internal signal of the differential circuit is interpreted as the output signal of the delay (DL1) in Figure 1 of Takahashi et al. which is "directly" connected to the gate of the transistor (P2). As shown in Figure 5 of the present invention, the reciting internal signal is not taken directly from the differential transistors (P3, P4) but it is taken at the output of the delay inverter. Moreover, since the inverters are used in the circuit of Takahashi for compensating the delay time difference between the output path and the feedback path. They can be removed without alternating the performance of the circuit if the delay time difference is zero.

The applicant argues that prior art does not show that the output signal having the same phase as the input signal. The argument is not taken because it is based on the limitation which is not supported in the specification as discussed above.

The applicant argues that there is no motivation to combine the Takahashi et al with the admitted prior art. The argument is not persuasive because the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the output of the

Art Unit: 2816

differential transistors of the admitted prior art is not connected to the current regulating circuit while Takahashi suggests to connect the output of the differential transistors to the current regulating circuit for the purpose of attaining a high speed cycle time. Thus, incorporating the teaching of Takahashi et al into the circuit of the admitted prior art would have been obvious to a person having skill in the art.

CONCLUSION

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any comments considered necessarily by applicant must be submitted no later than the payment of the Issue Fee and, to avoid processing delays, should preferably accompany the Issue Fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Art Unit: 2816

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Dinh Le whose telephone number is (703) 305-3790. The examiner can normally be reached on Monday to Friday from 7:00 A.M. to 5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Callahan, can be reached on (703) 308-4876. The fax phone number for this Group is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.



DINH T. LE
PRIMARY EXAMINER